(Please print plainly)

Date: July 19 1999
BIII No.
Or.
Subject

Subject

(Name)

Exec. Vice - President
(Street Address or Route Number)

Avis: Cattlemen's Association (City & Zip Code)

P.O. Box 868 New Glands Int. 53574
(Representing)

Speaking In favor:

Speaking against:

Registering against:

Speaking for Information only;

Neither for nor against:

Please return this slip to a messenger prompily.

Assembly Sergeant at Arms Room 411 West State Capitol Madison, WT 53702

### Assembly Hearing Slip

(Please print plainly)

110: July 19, 1999	BIII No.	Or. Subject	NOP VAI DUOCEL	(Name)	S Ro	man. towoo Wie	(City & Zip Code)
Date:	8	Subj	•	Z)	3	7	<u>o</u>

6
≘
=
<u></u>
ဗ္ဗ
۳
8

Speaking *In favor:*Speaking against:

Registering *In favor:*Registering against:

Speaking for *Information only;* 

Please return this slip to a messenger promptly.

Assembly Sergeant at Arms
Room 411 West
State Capitol
Madison, WI 53702

## Assembly Hearing Slip

Please print plainly)

95				9	(1)				Ŕ				乜
Date: 2049 191 1998	BIII No.	Or Subject	gunder of consider	<b>'</b>		(City & Zip Code)	54130	(Representing)	Speaking <i>in favor:</i>	Speaking <i>against:</i>	Registering <i>in favor:</i>	Registering against:	Speaking for Information only; Neither for nor against:

Please return this slip to a messenger promptly.

Assembly Sergeant at Arms Room 411 West State Capitol Madison, WI 53702 MISC 12 58

_
$\sim$
_
_
Ø
ם
_
Ξ
て
ā
0
S
as(
Õ
豆
=

Please return this slip to a messenger prompily. Assembly Sergeant at Arms Room 411 West Madison, WI 53702 State Capitol

# Assembly Hearing Slip

### (Please print plainly)

000 01 17	
Or Subject	
Randy Tempor	
Vest. Charr - Aric. / Not.	Rasouvees
(Sites) Address or Route Number)	. (
IN	(5/18ac
Appleton, WI	
(Représenting) Wis. Assoc. of	Voc. Agric.
Speaking in lavor:	
Speaking against:	0
Registering In Iavor:	0
Registering against:	0
Speaking for <i>Information only;</i> Nelther for nor against:	ø

### Assembly Hearing Slip

### (Please print plainly)

(Name)	N9679 OLD HWY 47 (Street Address or Route Number)	BLACK CREEK WI SYIDE	GILY & LIP GOOD) BANKERS SCENTC-VIEW FARM	(Representing)
	CDWARD (JACK) BANKER (Namo)	CDWARD (JACK) BANKER (Name)  N9679 OLD HWY 47 (Street Address or Route Number)	CDWARD (JACK) BANKER (Name)  N9679 OLD HWY 47 (Street Address or Route Number)  BLACK CRECK WI, SY/06	CDWARD (JACK) BANKER (Name)  N9679 OLD HWY 47 (Street Address or Route Number)  SLACK CREEK WT, S4/06 (City & ZIP Gode)  SANKERS SCENTC-VIEW FAR M

AG ECON + PROFITS
Speaking in 18vor: AG EDUCHTOON IN Speaking against: AG LHND 45E 🖾 Speaking for Information only; Neither for nor against: Registering against: Registering In favor:

Please return this slip to a messenger promptly. Assembly Sergeant at Arms Room 411 West

Please return this slip to a messenger prompily.

Assembly Sergeant at Arms Room 411 West

Madison, WI 53702 State Capitol

Madison, WI 53702 State Capitol

### (Please print plainly)

	EDUCATION ErESAUCH	AL Stewardship	brick Roxo	H	501470	2		À		naly;
Date: 7-19-99	BIII No. Or Subject Fouch	(Name)	(Street Address or Route Number)	(Clly & ZIP Code)	(Representing)	Speaking In tavor:	Speaking against:	Registering In favor:	Registering against:	Speaking for <i>information only;</i> Neither for nor against;

Please return this slip to a messenger prompily.

Please return this slip to a messenger prompily.

Assembly Sergeant at Arms

Room 411 West State Capitol

Madison, WI 53702

Assembly Sergeant at Arms Room 411 West Madison, WI 53702 State Capitol

Madison, WI 53702

Room 411 West State Capitol

# Assembly Hearing Slip

### (Please print plainly)

Datg: 7/19/99	Date:
BIII No.	BIII No.
Subject FACM Rewising	Subject Sale
Michael R MOORE	(Name)
Ados willow Rd	N 6449 M
Street Address or Route Number)	O STREET WOOLESS OF
(Cliy & Zip Code)	(City & Zip Code)
(Representing)	(Representing)
Speaking <i>in tevor</i> :	Speaking <i>in favor</i>
Speaking against:	Speaking againsi
Registering In favor:	Registering <i>in f</i> ar
Registering against:	Registering again
Speaking for <i>Information only;</i>	Nelther for nor a

### Assembly Hearing Slip

### (Please print plainly)

A BA	SNEWNOL	9					0			R	anger promptly	
Subject Sales Tox Sw	Jo Ann Macdre	(Name) Nugya Northview	(Sireel Address or Route Number)	(City & Zip Code)	(Representing)	Speaking <i>in favor:</i>	Speaking <i>against:</i>	Registering <i>in favor:</i>	Registering against:	Speaking for <i>information only;</i> Neither for nor against:	Please return this slip to a messenger promptly	Assembly Sergeant at Arms

(Please print plainly)

			SOCK	991	(ar)	2442		<u> </u>			0	X
Date: 7-19-84	BIII No.	Subject	Lours WV	(Name) 6857 HW	SS OF Ro	(Clty & Zip Code)	(Representing)	Speaking In Iavor:	Speaking against:	Registering In Iavor:	Registering against:	Speaking for Information only; Neither for nor against:

Assembly Sergeant at Arms Room 411 West Madison, WI 53702 State Capitol Please return this slip to a messenger prompily. Assembly Sergeant at Arms Room 411 West

53702

State Capitol Madison, WI

State Capitol Madison, WI 53702

×
perogeology

# Assembly Hearing Slip

Assembly Hearing Slip

(Please print plainly)	(Please print plainly)	•
9160	Date: 7/19/99	
Catie	ON III	
Bill No.	Subject Adrica Hure	
1946inc	Tim Gutsed	
(Name)	(Name)	
(Street Address or Route Number)	(Street Address or Route Number)	
(Cliy & Zip Code) Day K Parshuera	12 (XI	im
	(Representing)	
Speaking to the second	Speaking <i>in favor:</i>	
Chocanil I avoit	Speaking against:	
Checking against:	Registering <i>in favor</i> :	0
nacistating in Pavor:	Registering against:	
registering against:	Speaking for Information only;	
Nelther for nor against:	Please return this slip to a messenger promptly	er promotiv
lease return this slip to a messenger prompily.	Assembly Sergeant at Arms	
ssembly Sergeant at Arms.	Room 411 West	

2
☲
Ø
a
Ħ
듄
Se
8
<u>~</u>
<del></del> -

			) Carpentales	14 57			0		0	0	X
Date: 7-19-99	BIII No.	Bill Hafs	(Name) Brown G lang	(Street Address or Route Number)	(Cily & ZIP Code)	(Representing)	Speaking <i>in favor:</i>	Speaking <i>against:</i>	Registering In Iavor:	Registering against:	Speaking for <i>information only;</i> Neither for nor against:

Please return this slip to a messenger promptly. Assembly Sergeant at Arms Room 411 West State Capitol

Madison, WI 53702

## Assembly Hearing Slip

### (Please print plainly)

Registering In favor:

Speaking against:

Speaking in favor:

Registering against:

Speaking for Information only; Neither for nor against:

Please return this silp to a messenger prompily. Assembly Sergeant at Arms Room 411 West

Assembly Sergeant at Arms

Room 411 West State Capitol

Madison, WI 53702

Madison, WI 53702 State Capitol

\* Disclose about the of DRIGIN ON ALL FEED PRODUCTS

### Assembly Hearing Slip

(Please print plainly)

			iber) 5-4115	518				0		0	sender promotty
BIII No. Or Subject	Meil Mishlagy	Willay toward	r Route Num	(Cly & Zlp Code) Wi Veal Auwar	(Representing)	Speaking In favor:	Speaking ageinst:	Registering In favor:	Registering against:	Speaking for <i>information only;</i> Neither for nor against:	Please return this sile to a messenger promotive
			ł								

(Please print plainly)

	Kazmier czak	With Sold	dalls	mber)	SSAN		F				
Date: 7/19/579		I'm LADW	(Name) WEGGG R	(Street Address or Route Number)	(City & Zip Code)	(Representing) .	Speaking <i>in favor</i> :	Speaking against:	Registering In favor:	Registering against:	Speaking for <i>information only</i> ; Neither for nor against:

# Assembly Hearing Slip

(Please print plainly)

Datg: 7/19/99

	7	4 %	mber)		CONSIN		O			
BIII No. Or. Subject	JOHN CROSSMOCK	SLS BUSSE HIGHWAY	(Street Address or Route Number) PALL RIDGE, IL 60068	(Clly & Zip Code)	GROUNDS MANAGEMENT ASSOC (Representing) OF WISCONSIN	Speaking <i>in favor:</i>	Speaking against;	Registering in favor:	Registering against:	Speaking for <i>information only;</i> Neither for nor against:

Please return this slip to a messenger prompilly.

Please return this slip to a messenger promptly.

Assembly Sergeant at Arms Room 411 West

Madison, WI 53702 State Capitol

Assembly Sergeant at Arms. Room 411 West 53702 State Capitol Madison, WI



### Wisconsin Agribusiness Council, Inc.

2820 Walton Commons West, Suite 100 • Madison, WI 53718-6797 • Phone (608) 224-1450 • Fax (608) 224-1452 • www.wisagri.com

July 16, 1999

Rep. Al Ott Wisconsin Assembly 318-N State Capitol Madison, WI 53702

Attn.: Linda

Ref.: Hearing Ideas (July 19)

Dear Rep. Ott:

Please find an updated list of individuals who have expressed interest in making a presentation to the Assembly Agriculture Committee at the hearing in Green Bay on July 19. Any persons selected will need to be confirmed today, if possible.

Topic	Presenter	Affiliation
Wisconsin's Green Industry	John Crossmock	Grounds Management
	TruGreen Chemlawn	Association of Wisconsin
(Concerns about deer	525 Busse Hwy.,	
management, nursery licensure.)	P.O. Box 1198	
	Park Ridge, IL 60068	
	847-318-9786.	
	Tim Gutsch	President
	1002 Hamilton St.	Wisconsin Nursery Association
	Wausau, WI 54403	Wisconsin Tursery Association
	715-845-7752	
Agricultural Education	Randy Tenpas	Wisconsin Assoc. of Vocational
	Department Chair	Agriculture Instructors
(Meeting the challenges to fulfill	Agriculture/Natural Resources	
the industry need for a trained	Fox Valley Technical College	
workforce in agriculture.)	1825 Bluemound Dr.	
	P.O. Box 2277	
	Appleton, WI 54913-2277	
	920-735-5675 Fax: 920-735-2473	•
	Tax. 720-133-2413	

Reinvigorating Animal	Norval Dvorak	Animal agriculture, particularly
Agriculture *	Consultant to the Food Industry 1116 N. 6 <sup>th</sup> St. Manitowoc, WI 54220 920-682-2654	the packing industry.
	Fax: 920-682-2294	
	John Malcheski 6607 Quarry Dr. Pulaski, WI 54162	Producer
35 - 3 - 3 - 3 - 3 - 3 - 3 - 3 - 3 - 3 -	920-822-3811	

Food Labeling (Re: Country of	Neil Mischeleau	Animal Agriculture (veal)
Origin.)	President	Administrações Agriculture (vear)
	Wisconsin Veal Growers	
	Association	
	W 1124 Town Rd.	
·	DePere, WI 54115	
	920-833-6977	•
	Fax: 920-833-6976	
Potato Industry Opportunities	Louis Wysocki	Potato industry
and Concerns	Wysocki Farms	(Louis also serves as Chairman
	6857 Highway 66	of the Board, Wisconsin
	Custer, WI 54423-9609	Department of Agriculture,
	715-592-4113	Trade and Consumer Protection)
	Fax: 715-592-4109	
Professional Aerial Applicators	Jim Kazmierczak	Wisconsin Aerial Applicators
Support System	Kaz's Flying Services, Ltd.	Association
	W9646 Richards Road	7
(safety program)	Lodi, WI 53555	
	608-643-6784	
	Fax: 608-635-4686	

I am confident that these individuals will be prepared to make formal presentations of up to 5-10 minutes in length.

See you Monday Morning at ABS. I am counting on you bringing greetings to the group during the orientation and briefing before we board the buses. Okay?

Sincerely James L

3

### Assembly Agriculture Committee Hearing List

(Same. Also food safety and quality protection.)	Vernon Newhouse CEO Neighborhood Dairy W9260 Van Estem Rd. Kaukauna, WI 54130 920-788-1363 Fax: 920-766-5102 (farm office)	Dairy producer.
Agricultural Education (Continued) (Tentative) (Technician shortage.)	Vince Michalski Agronomy Specialist Cenex LandO'Lakes 2906 Greenbriar Rd. Green Bay, WI 54311 920-469-7918	Agronomy industry
	also Jack Banker farmer	Farm Training Students
Wiring Safety Program	Michael R. Moore Agribusiness Market Leader Sales & Marketing Wisconsin Public Service Corporation 700 N. Adams St. P.O. box 19001 Green Bay, WI 54307-9001 920-433-4919 Fax: 920-433-2977	Wisconsin Public Service Corp.
Odor Management/Control in Animal Agriculture	John Lader President Elect Wisconsin Pork Producers Assoc. 5821 E. LT Townline Rd. Beloit, WI 53511 608-365-3258 Fax: 608-365-1703)	Pork producer and allied industry business owner.

### Assembly Agriculture Committee Meeting Monday, July 19, 1999 – 7:30 p.m.. – Green Bay, WI

Informational hearing on agriculture industry topics

Members preesent: Rep. Ott, Chair; Rep. Petrowski, Rep. Hahn, Rep. Kestell, Rep. Spillner, Rep. Suder, Rep. Gronemus, Rep. Lassa, Rep. Reynolds, Rep. Waukau

Speakers in order of appearance:

Neil Mishleau - Wis. Veal Growers' Assoc. - Animal agriculture (veal)

C. Ken Werth – Self – Disclosure of country of origin on all food products

Bill Hafs – Brown Co. Land Conservation – Impacts of Agriculture on Water Quality in Green Bay Ecosystem

Tim Gutsch - Pres., Wis. Nursery Association - Nursery industry issues

John Lader – Pres.-elect, Wisconsin Pork Producers Assoc. – Pork industry issues

Louis Wysocki - Wysocki Farms - Potato industry

Jo Ann Maedke - Self - Sales Tax on Ag Consumables

Michael Moore - Wis. Public Service Corp. - Farm Rewiring/Grants and Loans

Vince Michalski - Cenex Land O' Lakes - Agric. education, research, stewardship

Edward (Jack) Banker - Bankers Scenic-View Farm - Agric. land use, profits, education

Randy Tenpas – Wis. Assoc. of Voc. Agric. Instructors – Agric. education

Bill Rockwell - Vocational Technical Colleges - Agric. education

Vernon Newhouse - Neighborhood Dairy - Dairy industry

Norval Dvorak - Food Industry Consultant - Animal agriculture, packing industry

John Freitag – Wis. Cattlemen's Assoc. – Cattle and packing industry standards

John Crossmock - Grounds Mgemt. Assoc. of Wis. - Deer management, nursery licensure

Jim Kazmierczak – Wis. Aerial Applicators Assoc. – Aerial applicators safety program





### **MEMO**

TO:

Assembly Agriculture Committee Members

FROM:

Linda Narveson, Committee Clerk

RE:

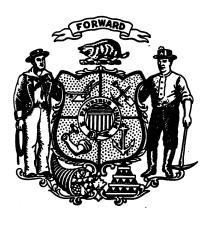
Materials from Public Hearing - July 19, 1999

DATE:

July 21, 1999

Enclosed please find copies of the testimony presented to the Agriculture Committee at its public hearing on Monday, July 19, 1999 in Green Bay, Wisconsin.

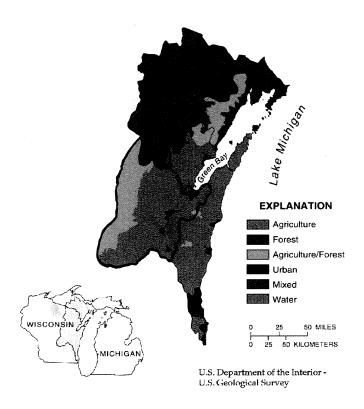
If you have any questions or comments, please feel free to contact us.



END

### Impacts of Agriculture on Water Quality in the Green Bay Ecosystem and Proactive Agriculture Approaches to Protecting Water Quality

The Fox-Wolf Drainage Basin is a sixty-four hundred square miles located in Northeastern Wisconsin that empties into Green Bay. The Lower Fox River has been identified by the International Joint Commission as one of 43 Areas of Concern in the Great Lakes. The "area of concern" (AOC) includes the lower seven miles of the Fox River from the DePere dam to the river's mouth and a portion of the lower bay. Two of the top five goals of the *Green Bay Remedial Action Plan* are to reduce sediment and phosphorus delivery to the Fox River and Green Bay.



### Agricultural Trends in Brown County and Northeast Wisconsin

Northeastern Wisconsin is experiencing a rapid growth in dairy expansions with many farms milking 500 cows and some approaching 2000. There are a total of 200,000 milk cows (2,800 family farms) in Brown county and its 5 bordering counties. More striking is the actual density of cows in this area measured in cows per square mile. Brown County ranks 1<sup>st</sup> in the state in cow density with Manitowoc 2<sup>nd</sup>, Outagamie 3<sup>rd</sup>, Kewaunee 5<sup>th</sup>, Calumet 7<sup>th</sup>, and Shawano 16<sup>th</sup>. Brown County is home to 33,000 milk cows with an average production of 17,100 pounds, which is approximately 1,000 pounds higher than the state average. Due to the high density of livestock in the area, 80 percent of the acres grow either corn or alfalfa, most of which is raised for feed.

The need to produce more food from fewer cropland acres has driven an increase in the number of acres of corn silage being harvested. This, in turn leaves less residue on the soil for erosion control purposes. Rapid urbanization of the Fox River Valley is causing a decreased agriculture land base due to development.



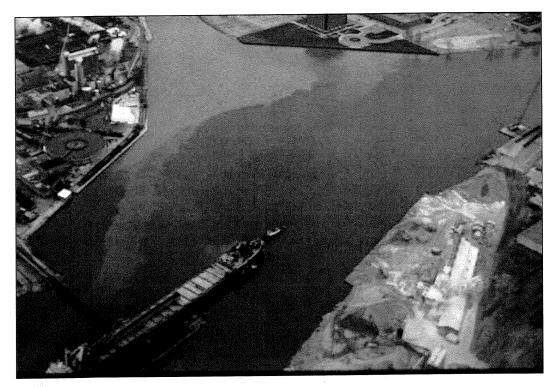
PLOWING TOO CLOSE OR THROUGH INTERMITTENT STREAMS AND CHANNELS INCREASES THE DELIVERY OF SEDIMENT AND NUTRIENTS TO THE STREAM NETWORK AND EVENTUALLY THE FOX RIVER AND GREEN BAY.

### Impacts of Agriculture on Water Quality

The most significant stressors to the Green Bay ecosystem are nutrients and sediment. Twenty-seven dump truck loads of sediment are delivered to the Bay daily. The cost of dredging sediment from the Harbor has averaged \$1.6 million dollars per year for the last ten years. Two hundred thousand cubic yards of sediment per year (ten year average) is dredged for shipping channel maintenance and placed in a contaminated disposal facility. (Corps of Engineers, RAP, NRCS)

Two small watersheds that are located near the mouth of the Fox River, the East River and Duck–Apple/Ashwaubenon contribute 70% of the sediment and 60% of the phosphorus loading of the Fox River to Lake Michigan. The East and the Duck-Apple/Ashwaubenon watersheds are only 7% of Fox – Wolf River land area of 6,400 square miles (Fox-Wolf 2000).

The Fox River is the second highest contributor of sediment (17%) and the largest contributor of phosphorus (21%) to Lake Michigan in the entire Lake Michigan drainage basin. (USGS water resources report 96-4092).

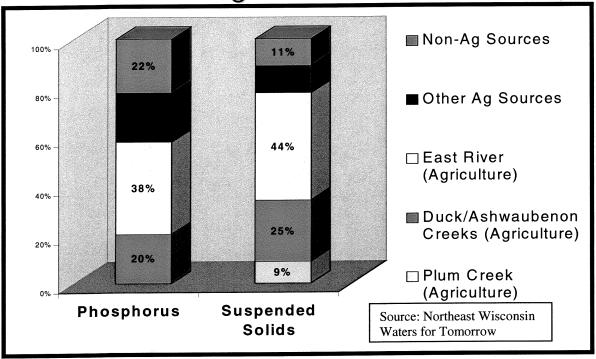


EAST RIVER AS IT EMPTIES INTO FOX RIVER AT GREEN BAY HARBOR APPROXIMATELY 1.5 MILES FROM THE BAY. AGRICULTURE IS THE NUMBER ONE SOURCE OF SEDIMENT (90%) AND PHOSPHORUS (70%) DELIVERED TO GREEN BAY (FOX- WOLF 2000).

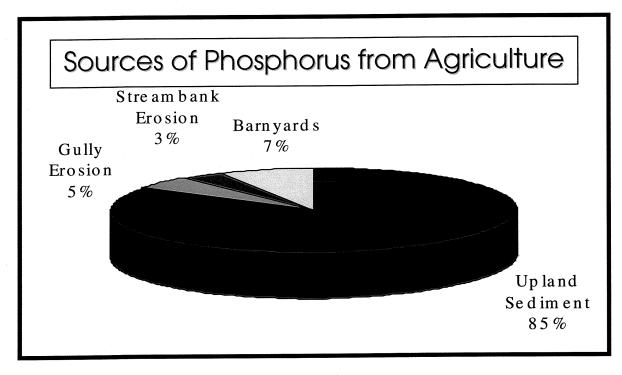


VIEW OF TURBID FOX RIVER AS IT EMPTIES INTO GREEN BAY AFTER RAINFALL EVENT IN EARLY 1990"S AN ESTIMATED 150,000 TONS OF SEDIMENT IS DELIVERED TO THE BAY EACH YEAR.

### Pollution Loading at the Inlet of Green Bay



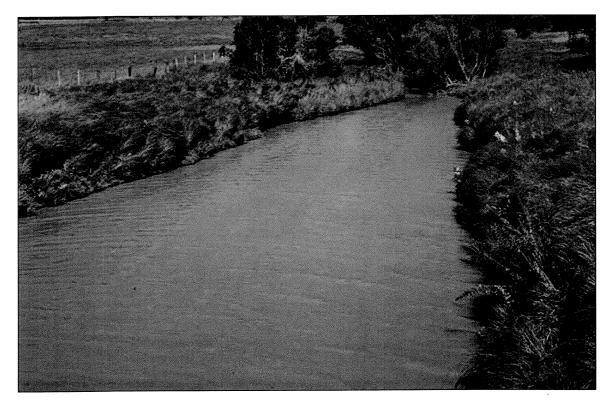
THREE SUB WATERSHEDS OF THE FOX-WOLF BASIN THAT ARE ONLY 7% OF THE LAND AREA CONTRIBUTE MOST OF THE PHOSPHORUS AND SEDIMENT LOADING TO GREEN BAY.



PHOSPHORUS LOADING FROM AGRICULTURE IS PREDOMINANTLY TIED TO UPLAND FIELDS. SOURCE: BRANCH RIVER, EAST RIVER, DUCK AND ASHWAUBENON CREEKS PRIORITY WATERSHED PROJECT PLANS



VIEW OF BOWER CREEK NEAR WHERE IT EMPTIES INTO EAST RIVER SHOWS THE IMPACTS OF AGRICULTURE SEDIMENTATION.



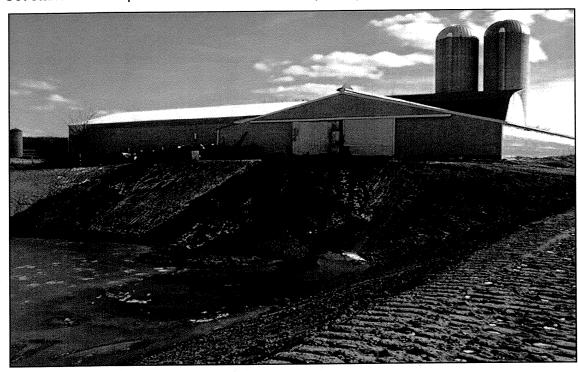
VIEW OF BUFFER STRIPS ALONG THE EAST RIVER IN BROWN COUNTY. NOTE THE COLOR OF THE STREAM AS HIGH LEVELS OF AGRICULTURE SEDIMENT IS TRANSPORTED TO THE FOX RIVER AND THE GREEN BAY.

### Proactive Agriculture Approaches to Protecting Water Quality

An Agriculture Ad Hoc Committee was assembled and developed revisions to the Brown County Animal Waste Management Ordinance that was adopted in January 1999 by the Brown County Board.

### **New Animal Waste Provisions:**

- 1. Requires nutrient management plans on all current permits issued (currently 185) and all future animal waste management permits.
- 2. Sets setback distances for new manure storage facilities/feedlots from lot lines.
- 3. Includes proper abandonment provisions for animal waste storage facilities.
- 4. Creates a Town review process of permits.
- 5. Added State Animal Waste Advisory Committee (AWAC) prohibitions.
- 6. Created requirements for livestock operations over 500 animal units and new feedlots.
- 7. Set standards and prohibitions that must be adopted by agricultural producers.



EXPANSION OF DAIRY FARM OPERATIONS GENERATES LARGE VOLUMES OF ANIMAL WASTE THAT IS A POTENTIAL WATER POLLUTION PROBLEM. AN AGRICULTURE AD HOC COMMITTEE FORMULATED REVISIONS TO THE BROWN COUNTY ANIMAL WASTE MANAGEMENT ORDINANCE (1999).

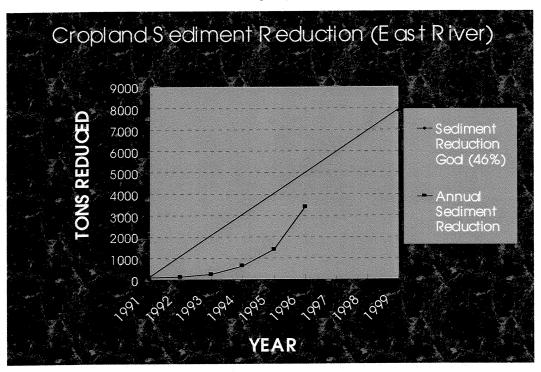
### What the new Animal Waste provisions accomplish:

- Establish clear rules that protect agriculture producers.
- Provide clear guidelines that Land Conservation Department staff can follow when providing technical assistance to landowner.
- Shares permit information with Town government and asks for Town approval.
- Creates standards and prohibitions to be followed and reflects changes in state statues.
- Protects water quality.

### **Erosion Control, Sediment Delivery Approaches**

To date, most efforts in combating nonpoint pollution on the rural landscape have focused on animal waste problems. Barnyard practices and animal waste storage facilities are the most popular and therefore have a higher implementation rate than other practices; however, they are also the most expensive. For example, \$4.75 million was spent in 1996 on nonpoint Best Management Practices in the eleven counties in northeast Wisconsin. Sixty-eight percent of this cost-share funding to landowners was spent on animal waste storage facilities (\$3.16 million), 17% was spent on barnyard practices, but only 14% remained for engineering practices that address upland sediment control. In Brown County alone, 154 animal waste storage facilities were installed in the last ten years.

While animal waste storage and barnyards have received a majority of the attention and effort from an engineering standpoint, recent watershed studies indicate animal waste is only thirty percent of the water quality problem. In the early 1990's the East River Watershed Project encountered problems with sedimentation reduction goals: management practices dealing with soil erosion and sedimentation were not being implemented on a broad scale by farmers.



TRADITIONAL CONSERVATION PRACTICES THAT ADDRESS CROPLAND EROSION WERE NOT BEING IMPLEMENTED BY LANDOWNERS. IN THE MID 1990'S, CONSERVATION MANAGEMENT PRACTICES SUCH AS GREEN MANURE COVER CROP, CONSERVATION TILLAGE, AND VEGETATED BUFFER STRIPS BEGAN HAVING INCREASED IMPACT ON SEDIMENTATION DELIVERY.

### Weaknesses with Conventional Agriculture Erosion Control Practices

Traditional conservation practices that address soil erosion and sedimentation were analyzed, concluding that they were not being effective for various reasons:

- 1. Poor incentive or cost-share packages offered to landowners.
- 2. The cost of implementing practices is not worth the economic return.

3. Major changes in farming operations needed to implement practices.

4. Inconsistent government programs: some require a "T" value, or Tolerable Soil Loss, vs. sediment delivery.

5. Practice may require additional expensive equipment to be purchased.

6. Conservation practices may not fit the topography.

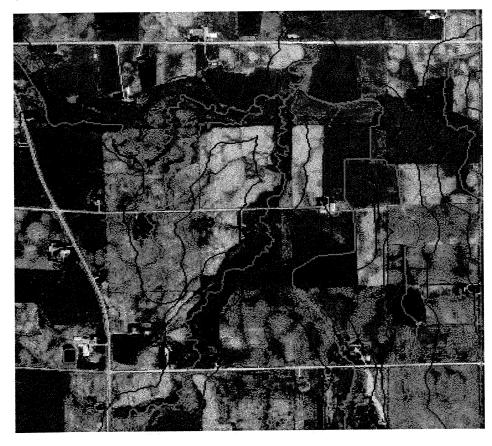
7. Staff time and knowledge required to sell and implement practices were inadequate for comprehensive application.

8. Not enough research data available to show practice effectiveness on various soil

types.

9. Limited correlation between soil erosion and water quality.

A need for alternative approaches that address sedimentation has resulted in the promotion of new management practices. Land Conservation Departments, Soil and Water Conservation Districts, and the Natural Resources Conservation Services have traditionally employed engineers and technical staff to design concrete walls and steel placement, perform sieve analysis on soils, inspect and test concrete, analyze hydrology, investigate soils, etc. Management practices such as green manure/cover crop, conservation tillage, and nutrient management address large acreages of land that are delivering soil and nutrients to streams. New staff who work on these land management practices are Agronomists, Planning Specialists, and Information and Education personnel.



GEOGRAPHIC INFORMATION SYSTEM IDENTIFIES AGRICULTURE FIELDS LOCATED WITHIN 300 FEET OF STREAMS THAT DELIVER HIGHEST LEVELS OF SEDIMENT AND PHOSPHORUS TO STREAM NETWORK AND TRACKS CONSERVATION PRACTICE INSTALLATION.

### Vegetated Riparian Buffers

A new conservation practice that reduces sediment delivery is the riparian vegetated buffer strip (buffer). A strip of grass as narrow as thirty feet placed between row crops and a stream can reduce sediments delivered to the stream up to 90%. Over four hundred research papers exist on the water quality benefits of buffers, with only a few published prior to the 1970's. The rate of publication is thirty to thirty-five papers per year.

Brown County Land Conservation Department aggressively promoted the County Streambank Protection Ordinance, which requires buffers on all 1200 miles of intermittent and perennial streams in the county. The ordinance, adopted in 1991, requires a minimum of thirty-five feet free of row crops, planted to grass, to be maintained between agricultural fields and all intermittent and perennial streams mapped on USGS quadrangle maps. Landowners are eligible for70% of installation costs such as seeding and shaping, and a \$500 incentive for each acre taken out of production. Because of the ordinance, the buffer is perpetual and attached to the land deed.

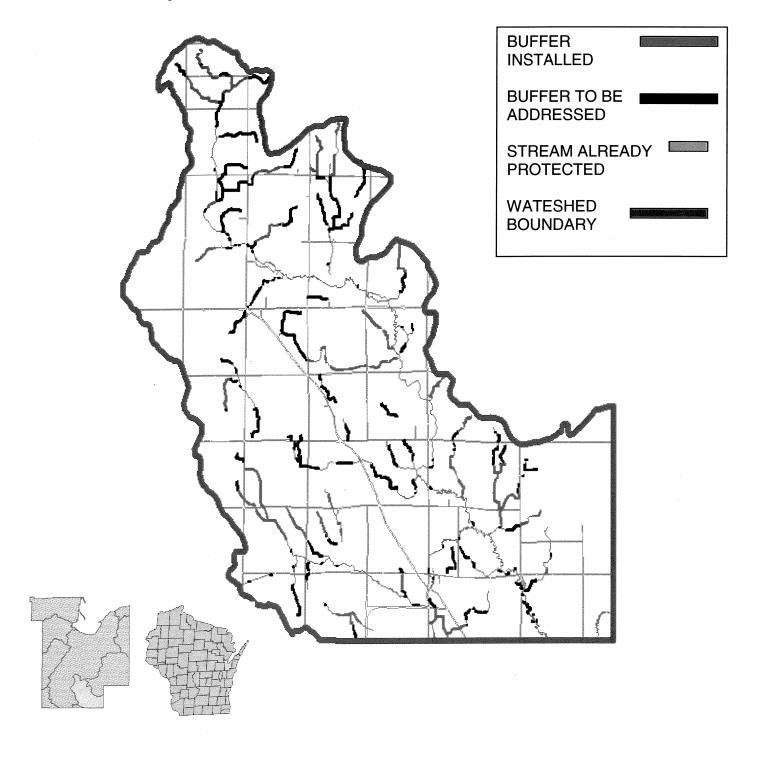


BROWN COUNTY HAS PROTECTED OVER 200 MILES OF STREAMS WITH BUFFERS SINCE 1991. BUFFERS CAN FILTER AND TRAP OVER 70% OF THE SEDIMENT FROM AGRICULTURE RUNOFF BEFORE IT ENTERS STREAMS, THUS IMPROVING WATER QUALITY. PHOSPHORUS, PESTICIDES AND OTHER CONTAMINATES ATTACHED TO SOIL PARTICLES ARE ALSO CAUGHT BY A PROPERLY DESIGNED AND MAINTAINED BUFFER STRIP.

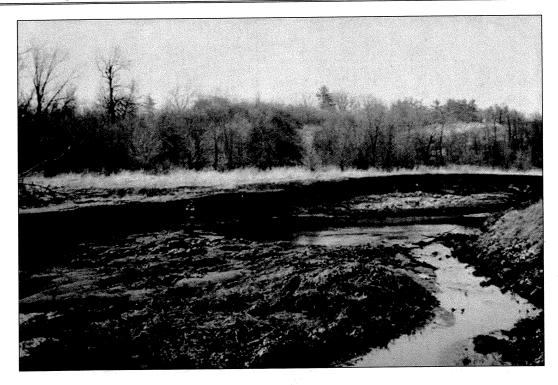
The cost of installing buffers and preventing sediment from reaching water resources is much more cost-efficient than remediating and cleaning out sediment that has reached the streams. Dredging soil from the Green Bay Harbor costs \$8.08 per cubic yard, which is 28% solids. The actual cost of sediment removal (dry weight) is \$28.85 per cubic yard. In comparison, the cost of installing buffers is only \$2.00 per cubic yard.

### VEGETATED RIPARIAN BUFFER TRACKING BRANCH WATERSHED

Adequate incentives (\$500/acre) combined with the regulatory components of an ordinance have led to the <u>permanent</u> installation of 200 miles of buffers. In the Branch River sub watershed, natural buffers had adequately protected many of the perennial streams. Much of the remaining buffer work needed is on small or intermittent streams.



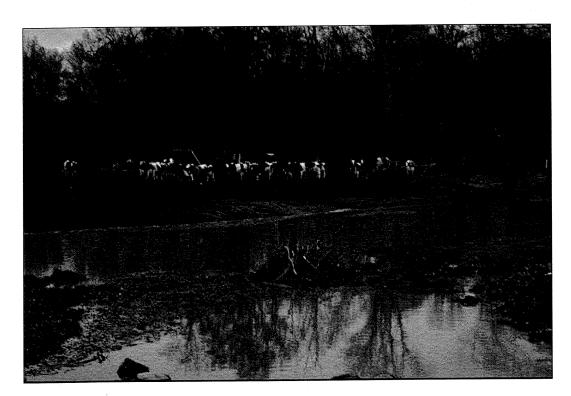
### Vegetated Riparian Buffers: before and after photos



PLUM CREEK - UNMANAGED PASTURE



PLUM CREEK ONE YEAR LATER -LIVESTOCK REMOVED.



BEFORE-DUCK CREEK WATERSHED



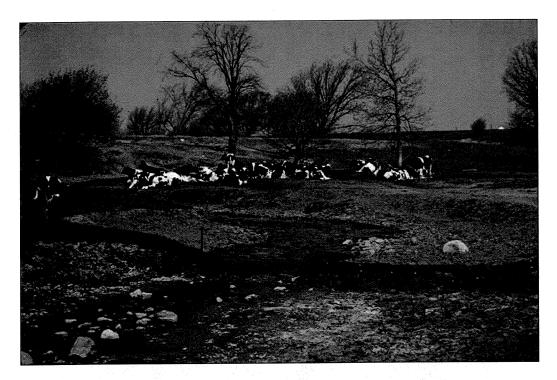
AFTER-ONE YEAR LATER. BUFFERS RECEIVE \$500 PER ACRE IF COST SHARE IS AVAILABLE. BUFFERS ARE REQUIRED ON ALL COUNTY INTERMITTENT AND PERENNIAL STREAMS BY COUNTY ORDINANCE, ATTACHED TO LANDOWNER DEED, AND ARE PERPETUAL.



BEFORE-DEVILS RIVER. LANDOWNER WAS TRYING TO PLUG THE GULLY WITH ROCK AND BRUSH WHILE OVERGRAZING.



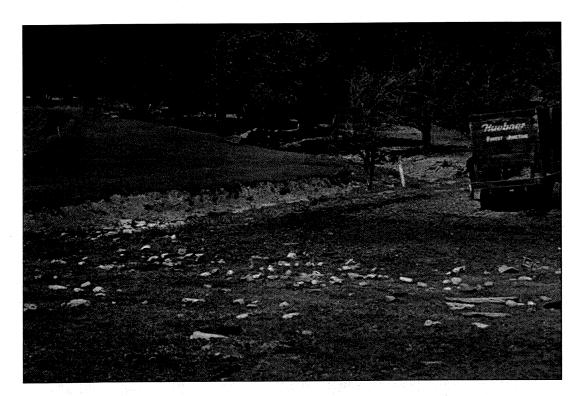
AFTER - TWO YEARS LATER. WHEN BROWN COUNTY ADOPTED A STREAMBANK PROTECTION ORDINANCE IN THE EARLY 1990'S LIVESTOCK DAMAGE WAS CORRECTED FIRST. OVER 200 LANDOWNERS ADOPTED MANAGEMENT CHANGES RELATED TO STREAMBANK PROTECTION.



BEFORE - ASHWAUBENON CREEK TRIBUTARY.



AFTER – TWO YEARS LATER. LIVESTOCK PROBLEMS HAVE NOW BEEN ADDRESSED AND BUFFERS ARE PRESENTLY BEING INSTALLED BETWEEN FIELDS WITH ROW CROPS AND STREAMS.



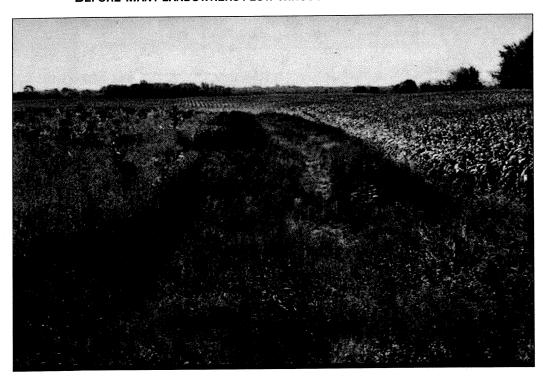
BEFORE - PLUM CREEK



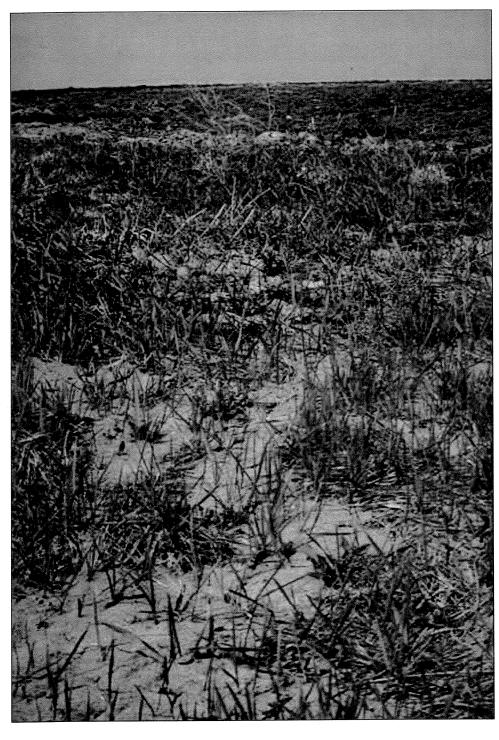
AFTER - ONE YEAR LATER.



BEFORE-MANY LANDOWNERS PLOW THROUGH INTERMITTENT STREAMS.



AFTER-ONE YEAR LATER. THE AVERAGE BUFFER WIDTH IS 35 FEET PER SIDE AND IS SET BY USING A SITE SPECIFIC RATING SHEET.



NOTE THE SEDIMENT TRAPPED IN THIS BUFFER STRIP. THIS BUFFER IS LESS THAN TWO YEARS OLD. PICTURE WAS TAKEN IN SPRING BEFORE PLANTING.



THIS BUFFER IS SEVERAL YEARS OLD AND IN EXCELLENT CONDITION. THE LANDOWNER SQUARED HIS FIELDS INSTEAD OF STAYING A SET DISTANCE FROM THE STREAM.

Brown County presently has less than 500 miles out of 1200 total stream miles that need vegetated buffers as tracked by our Geographic Information System. Currently we have goals and are on pace to have 100% buffer coverage on all 1200 stream miles within the next ten years.

For more information regarding report please contact:

Bill Hafs
County Conservationist
Brown County Land Conservation Department
1150 Bellevue Street
Green Bay, Wisconsin 54302

Phone: 920-391-4633 Fax: 920-391-4617

E-mail: hafs\_bc@co.brown.wi.us



FND

### **PAASS**

### Professional Aerial Applicators Support System 1999-2000 Program



### The Future Is Now

### Background

The primary PAASS goals are to reduce the number of drift incidents, aviation accidents and chemical spills associated with the aerial application of pesticides and fertilizers. The founders of PAASS believed that these goals would best be achieved by providing advanced educational opportunities for pilots and operators active in the industry. Specifically, the intent is to develop educational programs that strive to enhance the profession of the commercial aerial applicator and improve critical decision-making skills.

### Agenda Topics

1.	Improving Client Relationships	1 hour
2.	Managing Fatigue and Outside Pressures	1 hour
3,	Drift Minimization	2 hours

The primary instructional method will be interactive-participatory combined with some lecture.

### Topic 1 - Improving Client Relationships

This hour will detail the conditions or circumstances under which a professional applicator would say no to their customers about proceeding with an aerial application project. The topic includes a discussion about the groups or individuals the applicator must communicate with, such as growers, pest-control advisors, ground support personnel and the operators or business owners. The groups will develop a list of techniques, learned by aerial spray business owners and pilots, to professionally say no to customers and still retain these customers for future business and goodwill.

### Topic 2 - Managing Fatigue and Outside Pressures

The goal of this session is to identify the psychological and physiological factors affecting fatigue levels and to have the group suggest methods for assessing fatigue in themselves and others. Recognizing fatigue symptoms such as the inability to focus on the task at hand, to become easily distracted, or to be unable to handle multiple tasks, is an essential step in counteracting fatigue and stress. Lowering stress and fatigue is one ingredient in reducing aviation accidents and minimizing drift.

### Topic 3 - Drift Minimization

The goal of this activity is for the attendees to develop a pro-spray checklist and to prepare a comprehensive list of those environmental, physical or human factors in the local area that require additional preventative measures to protect them from off-target drift. If time allows, the instructors will also guide the attendees through an exercise to develop a crop calendar for use in identifying the stages of development of regional crops in relation to sensitivity to specific crop protection products.

### PAASS Program Content Development

(Non prioritized project list)

- Update existing instructor's handbook and slide program
  - Under Revision
- Develop a course on "How to Say No to Your Customers"
  - 1999-2000 Season
- Develop a course on fatigue management techniques for Ag pilots
  - 1999-2000 Season
- Develop a technical classroom drift management session
  - 1999-2000 Season
- Produce additional classroom handout materials each training season
- Publish a "Professional Operating Standards" manual
  - Initial Stages
- Develop the fly-in module
- Develop a workbook for program participants
- Develop a course on industry economics relating to drift and accidents
- Develop a long distance learning program on personal minimums for Ag pilots
- Develop an interactive classroom Ag aviation decision-making course
- Develop an emergency management planning course
- Develop a communications course for operators and pilots
- Ground crew and support personnel training program
- Wire strike avoidance course
- Develop a course on professional ethics for Ag avictors

### PAASS PROFESSIONAL AERIAL APPLICATORS SUPPORT SYSTEM

### Shaping the Future of Aerial Application

### Background

By the mid-1990s a number of issues affecting the future of the aerial application industry began to emerge at the national level. Industry leaders believed a long-term effort was needed to address these concerns. These evolving issues provided operators and pilots an opportunity to take the initiative in directing the change which will dramatically impact the agricultural aviation profession in the coming years. PAASS was founded to meet these challenges and to insure a bright tomorrow for aerial applicators by allowing them an opportunity to shape the future of agricultural aviation. The growing complexity of the technology being used in aerial application; continued urban encroachment of rural farmlands; and a demand by the general public for "a risk free environment, including safer, more environmentally friendly" crop protection products spawned more public scrutiny of modern farming practices and agricultural business operations. Areas of the country which had not previously experienced problems associated with the rural-urban interface were confronted with citizen attempts to ban or restrict aerial pesticide application. All these factors reinforced the need to develop a support system that provides agricultural aviators with continuing professional training, education, and accreditation.

### Drift

"Drift" is a national issue. The Environmental Protection Agency (EPA) has denied air labels for certain agricultural chemical products based on their interpretation of the risks to the environment, sensitive habitats, and specific species of flora and fauna. Chemical manufacturers are not pursuing aerial application labels on many new products and the loss of labels is a trend that continues in the aerial application industry. In 1996, several drift incidents became very high profile in the news media and raised the awareness of "drift concerns" at both the national and international level. Numerous Senate and Congressional representatives were contacted by citizen groups, farm labor organizations, and environmental activists alleging harm to public health and damage to the environment as a result of drift and misapplications in various parts of the country. An unprecedented number of local jurisdictions, including several states, were confronted with ballot initiatives, and they proposed ordinances to ban or regulate the aerial application of pesticides. In some cases, concerns were raised about the impact of involuntary exposure through drift of agricultural chemicals on nearby schools, parks, residences, and entire communities.

### **Agricultural Aviation Safety**

Ag aviation industry leaders expressed dismay with the continued loss of life and the number of debilitating accidents. In April of 1997, the FAA completed a statistical analysis of agricultural aviation accidents from 1989 through 1995, and concluded that "Trends are emerging suggesting a closer look at the industry is warranted."

### **Events Affecting Aerial Application**

### Drift Research And Product Labeling

The Spray Drift Task Force (SDTF) is a consortium of 38 chemical companies formed to support research for re-registration of many commonly used crop protection products and registration of new products coming to market in the United States. EPA and the chemical registrants want the ability to assess environment and public health risks from the off-target movement of these compounds. The SDTF has spent millions of dollars in field studies and research to assist EPA in developing a scientifically based, field validated risk assessment process. As in the past, regulatory decisions by EPA will dramatically affect the future availability of products and methods of application for agricultural pest management and plant fertility projects. Ag industry involvement through industry certification and training programs such as PAASS could be a requirement that keeps aerial labels on more products.

### Liability

Agricultural aviation insurance rates began to escalate at an alarming rate during the 1990s and the number of carriers willing to serve the agricultural aviation market dwindled to a handful. The increased cost of agricultural aircraft, combined with the aging of the Ag aviation fleet, were factors affecting rates throughout the country. Settlement and litigation costs associated with drift claims alleging damage to adjacent crops or private property grew during the late 1980s and into the mid-1990s. Insurance industry executives have stated, "The cost of premiums are based on historical accident rates and the number of liability claims. These are the most important factors affecting profit margins of companies insuring agricultural aircraft and several bad years of accidents and drift claims can be disastrous to any one carrier." Currently, the PAASS Program is helping to reduce insurance costs. Some of the Ag Insurance Companies are offering discounts to operators and pilots who attend the PAASS training.

### Accident Rates And Fatalities

As a result of several high profile commercial aircraft accidents, the Federal Aviation Administration (FAA) was pressured by the US Congress to aggressively regulate general aviation. In 1996, Congress revoked FAA's authority to be an advocate for the aviation industry. The Clinton Administration set a ten-year goal to reduce general aviation fatalities by eighty percent. FAA officials have stated: "Though there are a relatively small number of fatalities annually in agricultural aviation, in comparison to general aviation as a whole, we plan to meet this target by focusing our efforts on each individual sector of the aviation community. FAA prefers to develop a partnership with the Ag aviation industry to meet this objective of reducing fatalities, rather than having to impose additional regulations."

### **Education Versus Regulation**

The National Spray Drift Reduction Coalition was formed in 1995 to identify ways to reduce drift. It is co-chaired by the ground and aerial application industry and its members include representatives from state and federal regulatory agencies, USDA Extension, SDTF, and other stakeholders who have concerns in minimizing the impact of drift. This group is developing a standard national educational curriculum for drift training and has adopted a uniform definition of drift and buffer zones. In June 1997, this group agreed to endorse extension and industry training offorts which focus on reducing drift. The coalition participants have reached a consensus on using education and training programs to obtain drift reduction goals. EPA officials have publicly stated their approval for developing educational programs in lieu of regulations to minimize drift, but have stipulated that industry must be able to demonstrate the effectiveness of these programs. Therefore, the ability to measure the success or failure of drift reduction training is paramount if drift minimization activities are to remain voluntary. Recently, a new certification and training advisory group has been formed by several federal agencies at the national level, 'This partnership between the United States Department of Agriculture (USDA) and EPA includes officials from USEPA Office of Pesticide Programs, USDA Cooperative State Research Education and Extension Service, American Association of Pesticide Safety Educators, American Association of Pest Control Officials, and EPA Regional Certification and Training Coordinators. The primary goal of this group is to focus these agencies' efforts on establishing methods for pesticide certification and training programs to work closer with the pesticide regulatory community.

### The Professional Aerial Applicators Support System

Increased concerns with the accident and fatality rate among agricultural pilots and a growing awareness and perception in American society of the need to address methods to limit the off target drift movement of agricultural chemicals were responsible for the formation of the professional support system for nerial applicators. professionals recognized the common link between accidents and drift incidents - the pilot, whose decisions ultimately determine the frequency and severity of such events. This concept is key to understanding PAASS. It is designed to be a support system for pilots, providing education and training programs aimed at improving pilot judgment and aeronautical decision making. All interest groups involved in the aerial application process, from ground support people, to farmers, to airframe manufacturers and chemical companies have been asked to join in developing PAASS programs. The opportunity for PAASS to become a meaningful, flexible, in-the-field support system is wholly dependent on the commitment of agricultural pilots and operators. Pilots and the owners of companies which provide aerial application services are the vital components which must lead the effort to reduce the risk of accidents in the workplace and pesticide exposures to themselves, their customers, neighbors, and the communities in which they live. Initiatives undertaken by PAASS are subject to approval by the NAAREF Board of Directors and are limited by the Internal Revenue Service's regulations governing

nonprofit 501(C) 3 foundations accepting tax exemps contributions, donations, and government grants. Educational program participation cannot be restricted by requiring membership in a national, state, or regional trade association. PAASS is an educational and training effort based on the premise that, "Upon the performance of each, depends the fate of all". To ensure long-term recognition, the PAASS name, acronym, and logo are trademark protected.

#### Organizational Structure

The NAAREF Board of Directors adopted a formal structure for PAASS and a Steering Committee was established to oversee activities. Steering Committee members -- two operators, one pilot, an airframe manufacturer, a chemical industry representative, and one affiliated industry position -- reports to, and are nominated and appointed by, the NAAREF Board of Directors. The Steering Committee has the authority and responsibility to determine policy, establish the direction of the educational and training programs, set program priorities, coordinate activities between committees, and propose budgets and recommend fund-raising goals. NAAIEF retains primary fiduciary responsibility and is updated on the progress of PAASS at each of its board meetings and by periodic correspondence from committee and staff. In addition, the NAAREF Board of Directors approved the formation of the Program Content, Capital Campaign and Implementation Committees; and a Technical Advisory Panel. Chairs of three of these committees were appointed by the NAAREF Board of Directors that declared at that time, "All committees are to be chaired or co-chaired by operators and or pilots active in the agricultural aviation profession". The Steering Committee appointed a technical advisory panel and adopted a policy establishing this group as advisory only, with no formal chair. It serves the Steering Committee by providing individual technical expertise and consultation on specific components of educational programs or training activities.

#### **Activities In Progress**

#### **Drift Minimization**

In 1998 PAASS produced a drift reduction video and distributed over 2,000 copies of, "Drifting Toward Extinction, Or...?" to operators and pilots, federal and state regulatory agency personnel, university cooperative extension pesticide training coordinators, insurance company executives, chemical manufacturers and other interested parties. The video has a wide audience and is being used in pesticide license recertification programs, grower meetings, crop advisor training and at pilot/operator educational events. The National Drift Minimization Coalition's definition of dr.ft is used in this video to lay a foundation for a discussion of the agricultural pilot's role in minimizing the off-target movement of agricultural chemicals. Free copies are available from NAAREF.

#### **Accident Prevention**

In 1997-98, PAASS distributed 1,600 copies of the video "Turn Smart" to operators and pilots throughout the country. This is a professional training tape done from the agricultural pilot's point of view. It details methods to avoid stalls and spins during aerial application and is intended to prevent accidents and chemical spills. Stalls have been identified as one of the leading causes of fatalities, injuries, and spills associated with aerial application accidents. Copies are available from NAAREF for free.

#### Drift Incident Causal Factors Research

PAASS is accumulating data on the causes of off-target drift and is working with the aerial application insurers to monitor trends relating to the number of drift incidents nationwide. This information is being used to develop educational curriculum and provides PAASS the opportunity to tailor training programs that address off-target drift problems associated with the application of certain chemical formulations or that are related to specific cropping systems.

#### Aviation Accident/ Chemical Spill Causal Factors Research

During 1998, PAASS research produced a substantial amount of information on the causes of accidents in the agricultural aviation industry. Experts were hired to help the industry assess the human factors, errors in judgment, and economic trends that are affecting agricultural aviation accidents and off-target drif: incidents.

#### Pilot Interviews and Focus Groups

A broad cross section of the aerial applicator community was surveyed or interviewed on a regional basis and asked to participate in focus groups sponsored by PAASS in 1998. This activity was a primary assessment tool for the aerial application industry to assure that future PAASS programs would be effective in reducing accidents, chemical spills, and drift incidents.

#### Studies of Operational Procedures, Economic Pressures and Attitudes

PAASS did an assessment of human factors in aerial applicators that affect their performance in preventing off-target drift incidents and accidents. The areas studied are suspected to lead to errors of inattention in the cockpit, or poor attitudes toward personal safety and environmental stewardship, over confidence, relaxation of procedures, including the identification of operational pitfalls and psychological hazards associated with aerial application.

#### Assessing Risk Taking Behavior and Pilot Expertise

Selected groups of aerial applicators were provided an opportunity to do a self-assessment of their own risk-taking behavior to assist PAASS in identifying the characteristics that define an expert aerial applicator. This effort by PAASS is aimed at determining the decision-making traits that distinguish the expert from the apprentice aerial applicator and to find methods to more effectively teach agricultural aviation expertise to new aerial applicators. Statistics indicate younger inexperienced pilots account for a significant portion of the off-target drift incidents and accidents within the aerial application industry.

Curriculum and Training Modules

PAASS used subject matter experts in pilot education and the science of aeronautical decision-making to assist in program development. An a result, a four-hour training program specific to the needs of the aerial application industry was produced. These classroom sessions are focused on the principals of agricultural aviation decision-making, cockpit resource management, human factors training and the technical aspects of aerial application. The various facets of this curriculum are targeted to address off-target drift reduction, accident and spill prevention, while fostering professionalism within the industry.

Aerial Applicator Handbook and Testing Materials

PAASS is working cooperatively with USDA's Cooperative Extension Pesticide Applicator Training Program to develop a national aerial applicator handbook. In conjunction with this project, training materials and commercial applicator tests used by state agencies or universities for licensing aerial applicators will be upgraded nationwide.

#### Recertification Courses

PAASS provides a continuing education program for aerial applicators that qualified for four-hours of pesticide license recertification credits by many state regulatory agencies. These educational sessions are planned to meet specific needs within the aerial application industry relating to off-target drift reduction and aecident prevention. The program curriculum is based on agricultural aviation decision-making and includes a state, regional and national review of off-target drift incidents and agricultural aviation aecidents. Real case files are used to demonstrate the critical decision making factors that influence the frequency and severity of off-target drift problems and aerial application aecidents.

**PAASS** Applicator Training Courses 1998-99

State/ Country	Month/Year	Course Length	Attendance	Continuing Education Credit
	x/09	8 Hours	320	Yes
1. Louisiana	January/98 March/98	8 Hours	26	Yes
2. California		8 Hours	47	Yes
3. Arizona	June/98	4 Hours	358	
4. Australia	June/98	2 Hour	105	
5. Colorado fly-in	September/98	4 Hour	19	Yes
6. Michigan	October/98	4 Hour	175	Yes
7. Kansas	October /98	4 Hour	242	Yes
8. Pacific Northwes	t November/98	4 How	272	
(Washington, Ore	egon, Iaano)	4 Hour	45	
9. Illinois	November/98	4 Hour	34	Yes
10. Iowa	November/98	4 Hour	123	Yes
11. California	November/98	4 Hour	69	
12. South Dakota	November/98	4 Hour	93	Yes
13. Colorado	November/98	1 Hour	400	
<ol><li>14. Las Vegas</li></ol>	December/98	4 Hour	105	Yes
15. Oklahoma	January/99	4 Hour	30	Yes
16. Virginia	January/99	4 Hour	26	• • • • • • • • • • • • • • • • • • • •
17. Missouri	January/99	4 Hour	246	Yes
18. Texas	January/99		90	Yes
19. Northeast	January/99	4 Hour	90 90	Yes
20. Montana	January/99	4 Hour	300	Yes
21. Louisiana	February/99	4 Hour	300	Yes
<ol><li>Mississippi</li></ol>	February/99	4 Hour	275	Yes
23. Southeast	February/99	4 Hour	2/3	103
(Florida, Georg	gia, Alabama)		24	Yes
24. North Carolina	February/99	2 Hour	24	Yes
<ol><li>Nebraska</li></ol>	February/99	4 Hour	210	1 03
26. Canada	February/99	6 Hour	175	Yes
27. North Dakota	March/99	4 Hour	125	Yes
28. Minnesota	March/99	4 Hour	120	1 63
29. Idaho	March/99	4 Hour	75	

Incentives Include:

An AIG 5% premium reduction on Hull & Liability Insurance One dollar per thousand premium on life insurance Premium reduction for accidental spill insurance



#### Wisconsin Assembly Committee of Agriculture

Monday, July 19th at Green Bay, Wisconsin

Good evening, thank you for this chance to address you with a few concerns related to the Wisconsin Aerial Application industry. My name is Jim Kazmierczak. I am the owner operator/pilot of Kaz's Flying Service, Ltd. based in Lodi, Wisconsin. We apply agriculture crop products to crops in Wisconsin with the use of airplanes. I am the Secretary/ Treasurer to the Wisconsin Agricultural Aviation Association (WAAA), the Wisconsin Director to the National Agricultural Aviation Association (NAAA). I also serve on legislative committees with the Wisconsin Agribusiness Council, Inc. and the Wisconsin Fertilizer Chemical Association.

Wisconsin Aerial Applicators are highly trained professionals who have made a very large investment in their business. Like all Wisconsinites, we are concerned with the environment, and performing our jobs in a responsible manner. Over 90% are owner-operators, and 60% of us have been in business over 20 years, with an average of 10,000 hours or more of flying time. Many Aerial Operations are family businesses with family members responsible for aspects such as product mixing, aircraft maintenance, refueling, bookkeeping, work scheduling, weather monitoring, field scouting, and customer relations.

Aerial applicators are a necessary partner for Wisconsin's vegetable industry. Unlike field crops, pest are a huge economic burden to the vegetable industry. No one wants to buy vegetables loaded with worms. With the Wisconsin weather, Wisconsin vegetable growers can't wait 3-5 days until the ground drys up to use a ground sprayer. When using Interrogated Pest Management, timing is crucial. An Aerial Applicator can do more in a few hours than a ground sprayer does in a day. This results in using less ag products to control the pest which saves the vegetable growers money.

Wisconsin Aerial Applicators are professionals when it comes to performing our jobs in a responsible manner. For example, an Aerial Applicator can treat around 15 or more fields a day compared to a ground sprayer that may treat around 6 fields in a day. This results in the Aerial Applicator exposing themselves to around three times as much as an ground sprayer, that they may have some problems; in the eyes of the Department of Agriculture, Trade, and Consumer Protection (DATCP).

But according to the 1997 Agricultural Resource Management Annual Report of DATCP, out of the 251 complaints filed with DATCP during the 1997 season, only 7% were Aerial Applicators and only 2.8% of those resulted in actual violations. Other states are much higher, Iowa's at 25%, and Arkansas is at 90%. Wisconsin's public, can rest assured that the Wisconsin Aerial Applicators are concerned with the environment, and performing our jobs in a responsible manner. Because Wisconsin Aerial Applicators are commitment to continually improve our education and training and "are" the "cream of the crop".

But the members of the WAAA think we can do better. With the blessings of the Federal Aviation Administration and the Environmental Protection Agency, the National Agricultural Aviation Association has formed a new safety program called PAASS, Professional Aerial Applicators Support System. The primary goal of PAASS is to reduce the number of drift incidents, aviation accidents and chemical spills associated with aerial application of ag products. Over 25 states have included the PAASS program with their recertification process, and Mississippi has made it mandatory. The PAASS program is evolving, as of now it involves 4 hours or more of ground school where the pilots learn drift minimization, managing fatigue and outside pressures, cockpit management, and client relationship were we learn how to say "No, today we don't fly".

The WAAA endorses this program and will implement it in our annul fly ins, where we test our equipment with technology develop by NASA, to ensure that the Wisconsin Aerial Applicators are the "cream of the crop".

Unfortunately, DATCP has been less receptive of our program. We feel we've gotten the response from DATCP that "they" know what's good for us and "they" will tell us what "we" need to learn. Instead of education, DATCP prefers stricter and unnecessary regulations. Instead of listening to what we propose, they chose to ignore us. The DATCP has implemented a enforcement policy that results in fines now and ask questions later. Just because a few drops of chemical exceeds the target field, does not justify a \$1,500.00 minium fine and loss of license. If an applicator does actual harm, or endangers someone, they should be penalized. Otherwise a warning is justified, not threats of imprisonment and \$1,500.00 fines.

What does all this mean to Wisconsinites? It means, with the ever increasing regulation mentality that the DATCP has towards Aerial Applicators, it is and will drive the "cream of the crop" away. Why should we put up with being over regulated and over taxed. Why should we put up with the environmental zealots who shoot at us. Why should we put up with the weather, when there is plenty of green grass across the state line.

Who losses? Wisconsinites loose. They loose the "cream of the crop", with over 20 years of experience in their communities. Oh, yes! The pilots and operators will be replaced, but who will replace them, the pilots and operators from Arkansas who cause 90% of the problems. Wisconsinites will be left with less qualified pilots. The vegetable industry will suffer. When the vegetable industry can't get quality applicators to protect their investment, why should they stay in Wisconsin? The grass is greener just across the state line. Instead of Wisconsin being #1 in growing Green beans, Sweet Corn, Carrots and Cranberries, what will we be? Where will the lost jobs come from. It is already happening. The amount of Sweet Corn for canning is down by 10%, Green Peas are down 17% and Snap Beans are down 3%. Regulations are becoming more numerus, farmers and canneries are dropping out of business like flies.

Education, not regulations, will increase Wisconsin's application safety, environmental well being, economics and will keep the "cream of the crop" in Wisconsin. It is our hope, that this committee will see that our concerns are simply, "common sense", and that you agree with us and will help us

We would like the DATCP to change their enforcement policy, \$1,500.00 fine and loss of license for a few drops is unacceptable.

We would like the DATCP to work with the professionals in our industry, who know our industries special needs, to design a comprehensive safety education program, possibly utilizing the PAASS Program.

Thank you, I'd be glad to answer any questions now or at a later date.



FND

Members of the Agriculture Assembly Committee:

My name is Jack Banker. My wife, Judy, and I are the owners and operators of Bankers Scenic-View Farm. We have farmed about 300 acres together in northern Outagamie County since the death of my father in 1977. Presently, we are members of the Professional Dairy Heifer Growers Association, and custom raise approximately 750 dairy replacement heifers for a dozen individual Dairy Producers. This is a family operation, which includes our son and his family.

Prior to a barn fire on December 26, 1997, in which we lost our entire milking herd, we were milking approximately 90 head of cattle with a rolling herd average of about 24,000 lbs. of milk.

I am addressing you today in regard to several issues: Economics and Profitability, Agricultural Land Use and Preservation, and Agricultural Education and Research.

Economics and Profitability: After our barn fire, we started putting numbers together on what it would cost us to rebuild our dairy operation, cost of labor in our area, and the milk pricing policies now in effect. As a family, we could not see the profitability in rebuilding our dairy facility and still operate without hired labor. We strongly feel that present milk pricing policies are archaic and must be replaced to enable the average family-sized dairy farms to continue to exist. It is sad that today's economy can not provide for a higher standard of living for our hard working family farmers. Many of them cannot afford the necessities from milk check to milk check. Financial emergencies or disasters, such as our fire, is enough to bring most small farms to bankruptcy and foreclosure. I feel that there is a need for upgrading our loan guarantees through our commercial banks in cases of disasters. WHEDA is not getting the job done.

Agricultural Land Use and Preservation: I do not live in an immediate area where urban sprawl is eating up farmland at unprecedented rates, but I very much question the idea of having to sell 35 acres of farmland in agriculture exclusive zoning areas, to be considered legal. Most of this land remains idle except for several acres that is used for the building site. In my opinion, this is very poor use of our farmland.

Agricultural Education and Research: I firmly believe that education is a prime tool that can be utilized to help provide for a better future for young farmers. The problem here is the shortage of agriculture instructors in the state of Wisconsin, causing the abandonment of high school and technical college agriculture programs. It is a concern to me that many of the technical colleges are not replacing instructors lost to retirement or

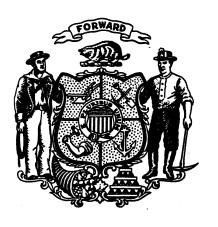
other jobs due to the shortage. Another problem is the reduction of instructor contracts from 48 weeks to 38 week contracts, resulting in a loss of income and thus making it a less desirable occupation.

I appreciate the opportunity to present my concerns here this evening and hope to provide an awareness of the problems facing our dairy farmers. Although I am no longer a dairy producer, my livelihood ( as many others) depends on the profitability of our dairy farms in the future.

Thank you,

Edward (Jack) Banker Bankers Scenic-View Farm N9679 Old Hwy 47 Black Creek, WI 54106 Phone: 920-833-2633

E-mail: Jbank@Panthernet.com



END

# Careers in Production Agriculture

Building Career Pathways
To Meet the Emerging
Workforce Needs of
Agriculture in Wisconsin

Mary and Dave are in their mid-30's, farming with Dave's parents and another brother and his family. The farm is in an area under urban pressure.

Dave and his brother still have no ownership in the farm. Their father has noted that the estate will be split equally among the 5 siblings. Dad is now 60 years old.

The sons are wondering what future they have on the farm, whether they can afford it, and whether they will have anything to offer their own children. Interestingly, Dave's father used to complain that his dad sold him the farm too late in life. Now the sons feel he is repeating the same mistake with them.

#### **Background**

It is common knowledge that the number of farms is declining. There are many reasons why this is occurring. Research indicates that the net decline can largely be attributed to a lack of new entrants into farming. We also have a shortage of good farm workers. Why are people not choosing production agriculture for a career? There are many factors that contribute to this problem, including: farm financing, narrow profit margins, environmental factors, cost of technology, markets, macro-economics, fewer farm children, etc. There are also many groups working to address these different factors.

Successful careers in production agriculture do exist, despite these challenges. The difficulty today seems to be in understanding the complete picture of the range of opportunities in production

agriculture careers. In general, there seems to be a lack of confidence by many to pursue production agriculture as a viable career. How do you get in? How do you get out? Is their opportunity for non-ownership employment and advancement? The means by which we address our present and future skilled labor force needs is complicated. One of the keys is contained in the process by which people get into and out of production agriculture and progress in those careers.

Several years ago, a group of people (Farm Entry-Exit Coalition) concerned about how hard it is to enter and exit farming met to work on the problem. Much progress was made in understanding entry/ exit issues and new services were "born" as a result of this discussion. However, many in the group realized that agriculture career transition encompassed much more than farm entry/exit. Out of the "coalition", the Ag Career and Farm Transition Group was formed. The group consists of farmers, producer groups, educators, and other ag service providers.

From the outset, the members established an emphasis on the value of diversity in type and size of farm enterprise. Large farms offer a gradation of professional opportunities, some with benefits and securities parallel to professional positions in others sectors of the economy. Medium sized, owner-operated farms offer opportunities for business ownership and development, and for independent lifestyles. Smaller part time and/or

#### Why We Need You

This career pathway vision for production agriculture does not currently exist. There are 3 keys to success in achieving this vision.

**First**, we must work toward a mutually shared understanding of career paths in production agriculture. This recognized career path will never become a reality without the broad support of the agriculture community. A strong consensus for this would create more of a sense of priority.

**Second**, a collaborative and mutually supportive approach by education and service providers is needed to build an educational support structure. This needs to be built with input from the ag industry. It should define the range of services available to production agriculture, including continuing education. Out of this, a system of coordination and support can be developed.

**Third**, continuous feedback from the "field" on industry needs and ways to improve service delivery will be essential to keep the career pathway system current and responsive to changes in the industry.

#### You can help

Every farm-related organization is needed as a partner if a production agriculture career pathway is to become a reality. You and/or your organization can help by partnering with us in practical ways to:

- provide input for needed changes in the educational delivery systems
- provide input on how service providers support a career pathway
- gather and promote stories of successful farm entry and exit
- promote various models of successful farm enterprise
- promote technical agriculture (non-ownership) careers as a viable choice for an uninformed public
- acquire funding to synthesize information, create publications and video materials,
   etc. which portray modern production agriculture as a compelling career choice.

#### The Future

Developing a production agriculture career pathway system will give producers, and potential producers more resources and tools to use to develop their skills, motivate employees and plan their farm businesses. It will also provide a clearer choice of opportunity for those employees and potential employees to secure rewarding work and progress in their careers.

Most of all, building a career pathway will create a new sense of optimism about the opportunities in production agriculture. It is this new optimistic view of the future that will compel both traditional and non-traditional audiences to choose production agriculture as a career. This is vitally needed if we are to have a sufficient supply of new farm owners and technical employees now and in the future.

Members of the Ag Career & Farm Transition Group include:

Paul Bickford, Dairy Farmer

Ralph Bredl, Professional Dairy Producers of Wisconsin

Rick Daluge, UW-Madison, Farm and Industry Short Course

Gwen Garvey, Wisconsin Farm Center, Wisconsin Department of Agriculture, Trade & Consumer Protection

Jeanne Meier, Wisconsin Farm Center, Wisconsin Department of Agriculture, Trade & Consumer Protection

Tom Parslow, UW-Extension

Bill Rockwell, Wisconsin Technical College System

Dwaine Sievers, Agri-Business Consultants, LLC

Kathy Schmitt, Wisconsin Farm Center, Wisconsin Department of Agriculture, Trade & Consumer Protection

Steve Stevenson, Center for Integrated Agricultural Systems, UW-Madison. Program on Agricultural Technology Studies, UW-Madison & UW-Extension -- supportive organization

Sharon W. Wendt, Department of Public Instruction

#### **Information**

For more information, contact the Wisconsin Department of Agriculture, Trade & Consumer Protection, Wisconsin Farm Center at (608) 224-5048

graphic represents only the outline of a total career path system. In its fully developed state, the career pathway would ideally include these elements:

- General position descriptions for possible career areas within the pathway.
- Listing of job titles within career areas and how these naturally build on one another in a "career ladder"
- A description of the educational requirements necessary to be successful in a chosen career area
- A description of the means of transition between career and associated educational levels

Creating a model made it possible to see where gaps of information and services exist. From examining gaps, a vision of a functional production agriculture career development system can be proposed. This **vision** includes the following:

Russ participated in an FFA program called Work Experience Abroad after high school. He spent 13 months traveling around the world working on farms, including a New Zealand dairy farm. Russ wanted to be a farmer but couldn't see any way to do it with all the capital required. After learning about management intensive grazing, he decided he could start farming after all.

Russ trained to become a nurse and began to save money. He heard about the School for Beginning Dairy Farmers and decided to move to Wisconsin and attend.

While working at a large grazing farm during school, he started to buy heifer calves and looked for a farm to rent. After two years, Russ acquired 28 springing heifers, 20 young heifers and a rented farm. He used the heifers and \$20,000 saved as equity, put together a business plan, and applied for a loan. He borrowed \$40,000, purchased a herd of jerseys and a tractor, and started milking on April 5, 1997.

- The career stages in production agriculture/agribusiness are well defined, options are understood and articulated.
- All educational systems and service providers work together to create a seamless, but fluid system of career transition.
- Key stakeholders guidance counselors, financial advisors, educators, etc. all understand and can articulate the same coherent ag career pathway.
- Many equity-building options are available for farm business entry.
- Multiple business exit options are in place and clearly defined.
- Multiple farming business models are recognized as functional and profitable.

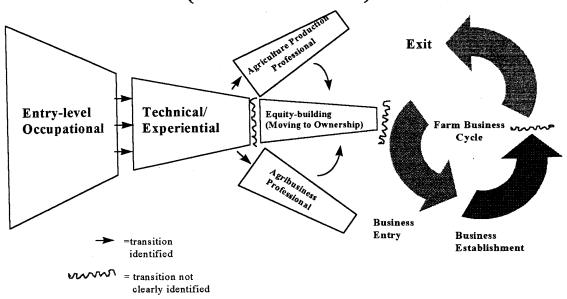
#### Farm Employees in Short Supply

Though reliable farm labor statistics are not available, it has become apparent that an impending crisis exists in farm labor supply. The traditional sources for farm labor, i.e. family, extended family, neighbor kids, etc. are drying up. Skilled agricultural labor is even harder to find as there are fewer "farm kids" available and greater competition from non-farm jobs in a low unemployment economy.

#### **Description of Production Agriculture Career Pathway**

The following model represents the basic production agriculture career pathway. It is important to note that people can enter the occupation at any point in the pathway. There are varying degrees of support services along the way to assist people.

### Agriculture Career Pathway (Basic Outline)



A "career pathway" is defined as: <u>A coherent sequence of steps and options one</u> could take to enter, progress, and exit a chosen career field. The career pathway

specialty farms with more direct linkages to consumers offer opportunities to productively join farm and off-farm enterprises, and to practice agriculture in proximity to metropolitan areas.

Scott was raised on a dairy farm until his parents relocated and began turkey farming. As an adult, Scott worked as a hatchery manager, but he and his wife wanted to return to dairying.

They eventually submitted an application to the Farm Link Program at DATCP and were matched with a farmer in Marathon County.

Because Scott had equity in cattle and machinery, they were able to work out a transfer arrangement quite quickly. The senior farmer found a place in town and got a job at the local co-op. He helps out on the farm when needed.

This match worked for several reasons: the timing was right, Scott came in with equity, the senior farmer was ready, willing and able to make a change, and the two families were able to talk together and work together.

#### **Focus**

The Ag Career and Farm Transition group decided that a largely overlooked problem in attracting new entrants into production agriculture is the lack of a defined career path and supporting systems. Other employment sectors in the U.S., such as health care, banking, and manufacturing, do have clearly defined career paths. Potential entrants into production ag are discouraged by a complex, unclear system. By creating a new **Production Agriculture Career Pathway**, we can create a sense of opportunity in production agriculture which will attract potential farmers and farm employees.

The group identified the following goals:

- Build a more seamless and coordinated education system which supports the career path.
- Identify more and clearer options for equity building and farm ownership.
- Create means to attract more people into production agriculture careers.
- Identify career options for non-ownership involvement in production agriculture.
- Identify clear options for transitions out of farming.

#### Adult Agricultural Education, Career Paths and the Economy: Testimony to Assembly Task Force on Agricultural Education July 19, 1999, Green Bay Wisconsin

#### William Rockwell, Educational Consultant, Wisconsin Technical College System Board

I appreciate the opportunity to speak to you about an important subject, that of agricultural education for the adults of this state. My remarks will focus on two principle needs:

- 1. The need for stronger farm business management education for farmers
- 2. The need for a production agriculture career path to ensure a sufficient supply of new entrants into agriculture

Benjamin Franklin said about 250 years ago: When the well's dry, we know the worth of water. This is aptly put and fits well with our view of the future of agriculture in this state. Its all around us, but we take it for granted. It is the backbone of the state's economy and enables many other types of business to thrive. More and more, as the vast majority of the population becomes one generation more distant from the land, we forget what makes our state's economic engine tick.

#### THE POINT

The point of my presentation to you is this: Agriculture is still the most important sector of our economy in this state. If we want to keep it strong, and in fact make it stronger, providing for a sound base of education and training is foundational to that end. Therefore, technical agricultural education can be argued to be strategically important to this state and its future.

As a brief illustration of the importance of agriculture to this state, consider the following statistics: Cash receipts on Wisconsin farms is approaching \$6 billion. Agricultural exports continue to increase and today amount to \$1.5 Billion for Wisconsin. Total farm assets today are approaching \$24 Billion. Average farm assets are around \$300,000 per farm. Research has shown that agricultural activity is directly responsible for creating about 19 % of the related jobs in this state.

Today a major re-structuring is taking place in our rural landscape. The necessities of efficiency and economies of scale are driving our producers to larger units. As value of assets increase as well as the enormous need for capital, debt load naturally goes up.

Today's farm owner/manager has to be a better business person, that's a given. But more than that, they need training in business management that meets their immediate and long-term needs. Farm business survival will be more and more dependent on: Financial management, business planning, record-keeping and personnel management.

The Wisconsin Technical College System currently has about 3000 farmers enrolled in its Farm Business and Production Management program. The program, run out of 12 technical colleges around the state is a six year curriculum sequence of courses (3 credits each). The courses are designed to cover both farm production and management concepts. The bottom line today is: 18 credits of instruction over six years is not enough entry-level or continuing education to meet the demands of the manager of the future. In addition, technical colleges today are enrolling only a fraction of the total farm managers that are in business.

Clearly, more will need to be done. Expanded "advanced farm management" needs to be offered. The instruction needs to be tailored to the learning needs of today's working adult. Video instruction, internet courses or other individualized format will more that likely need to be explored as we move forward.

The second major need is that of developing a viable career path for the purpose of supplying sufficient numbers of agricultural workers and future farmers. The situation is outlined in the attached paper I am providing to the task force: Careers in Production Agriculture, Building Career Pathways to Meet the Emerging Workforce Needs of Agriculture in Wisconsin.

Where are our future farmers going to come from? Who will work on the farms of the future. The current labor shortage in the economy in general is also acute in the farm sector. Dairy herd workers, farm managers and others are in short supply.

The farmers who have committed to farming for keeps are a new breed. They are much more progressive and willing to take charge of their own continuing education. But they need the management and technology education resources to do it. They also need top notch employees who bring the right technical skills to the job. Hiring Johnny or Susie part-time from down the road just will not cut it in the future economy.

#### WHAT CAN BE DONE?

- 1. A production agriculture career path would be a good start to encouraging young people to pursue a career in production agriculture, whether as an employee or an owner. (The attached paper outlines the career path concept.)
- 2. Expanded adult education for farmers needs to be developed especially in the area of intensive farm business management instruction.
- 3. Leadership and resources need to be directed toward supporting the development of career and adult educational opportunities for farmers

#### **CONCLUSION**

We know the worth of water, once the wells dry. Hopefully we realize before that happens the critical importance agriculture plays in our state's economy. Along with that, we must realize the pivotal role that agricultural education has in supporting and advancing the agricultural economy in this next century.

Thank you for allowing me to discuss this important issue with you.

## 1999 Wisconsin Agribusiness Tour July 19th, 1999 Wisconsin Assembly Agriculture Committee Hearing By: Randy S. Tenpas

Ladies and gentlemen of the Wisconsin Assembly and Agriculture Committee. Thank you for taking the time to conduct this Agriculture Committee Public Hearing on Agriculture Issues. I appreciate your interest and participation on a topic that is very important to the state of Wisconsin.

I am the Faculty Department Chair of the Agriculture & Natural Resources Department at Fox Valley Technical College. I am completing my 16<sup>th</sup> year on the staff of Fox Valley Technical College and my 23rd year in the field of agriculture.

I would like to increase your awareness for additional support that is needed in Agriculture Education to keep our major Wisconsin industry viable in the 21st century.

There are over 25,000 farms in the state along with the many Agribusiness enterprises that support production agriculture. The need for trained individuals in the field of agriculture is at an all time high. The extent to which the agriculture industry is successful is directly related to healthy communities and their economy.

My concern is the need for additional support in the area of Agriculture Education at the Wisconsin Technical College System Board level. Presently there is a 25 % Agriculture Staff/Consultant position within the Wisconsin Technical College System. The need for a full-time WTCS Agriculture/Natural Resources state staff and Postsecondary Agriculture Student Organization (PAS) Executive Director is overdue. There is a wonderful opportunity to continue and expand the articulation between secondary and post-secondary agriculture educational systems to meet the training needs of the 21<sup>st</sup> century in the field of agriculture.

State Leadership and Articulation would "Champion" the many opportunities that exist in Agriculture Education:

Youth Options
Youth Apprenticeship Programs
KSCADE Network Systems
Internet Technology
Dual Credit/Advance Standing
Transfer of Credits (2+2+2)
Curriculum Development
FFA and PAS Leadership Development Organizations
Coordination of Agriculture Programs in the State
Articulate with Business and Industry
Articulate with Agriculture Organizations

In conclusion, the issues and opportunities that I have brought forward could be championed by an aggressive state staff member, who would work with other agriculture leaders to improve agriculture and agriculture education in the state of Wisconsin. Thank you for your time, I hope the you will continue to support and increase your support for the field of agriculture.